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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Randal Lee Bertram

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SAWYER LAW GROUP LLP

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EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT

PAPER NUMBER

2145

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/805,413

Applicant(s)

BERTRAM ET AL.

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/30/2006 have been fully considered but they are not persuasive.
2. Applicant attempted to broaden the definition of "computer readable medium" to further encompass intangible media. "...is to be stored in some form of computer readable medium, such as memory, CD-ROM or transmitted over a network... Specification, page 19, lines 4-8. The definition Applicant provided of "computer readable medium" clearly stated including network transmission media. Applicant's response, page 2, further defined the types of possible network transmission media to include additional intangible embodiments. "...for example including but not limited to a network, optical medium, electromagnetic medium, and infrared medium..." Applicant's definitions provided both in the specification and the remarks have broadened Applicant's view of what is considered a computer readable medium beyond the tangible embodiments permitted by law and Annex IV of the Interim Guidelines, previously cited.
3. The 112 rejections are maintained. It is impossible to gauge from the claims and specification what is defined as the "latency" or "future" of a bottleneck. The rejection to claim 5 is withdrawn. The rejection to claim 10 is withdrawn.
4. Applicant argued Prakash failed to disclose providing a cluster level remedy if the results of the dynamic analysis indicate that the performance of the cluster can be improved. Prakash, column 10, lines 20-47 taught extended communication established between the OSM and the ailing devices. Further column 9, lines 41-43 showed the response of "healthy" or "unhealthy" status information regarding specific nodes. An "all fine" notice was sent in column 9, lines 50-65. "All fine" messages were sent only when all devices reported as "healthy". The transmission of an "unhealthy" status concerning one node signaled to the management node that a "cluster level remedy" to "improve the performance of the cluster" was to repair the "unhealthy" node reported since the cluster was not "all fine".
5. Applicant argued Prakash failed to disclose that a latent bottleneck was not included in the health determination of a device. Column 10 clearly stated the issuance of "detailed status request[s]" to ailing devices. One of ordinary skill in the art recognized that said status requests were inclusive of all

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problems in the device, including latent bottlenecks as understood by the submitted specification and claims.

6. Applicant argued Prakash failed to disclose the limitations of claim 5, but failed to state how Prakash failed to teach said limitations. Applicant admitted Prakash taught an "unhealthy device" was manufacturing in some manner and included "any number of issues". One of ordinary skill in the art recognized that disk utilization, CPU utilization, memory usage, and LAN utilization were key components of a node in Prakash. The detection of a "healthy" or "unhealthy" device in Prakash inherently taught the examination of these components in determining the status of a device. From MPEP 2112: "[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980)

7. Applicant's argument with regard to claims 6-7 and 10 is the same as the argument in regard to claim 1, and has been addressed above.

8. Applicant argued the specifics of a cluster in claim 12 were not included in status messages. These specifics are further included in the "detailed status request" messages in column 10, lines 48-67.

9. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

10. Applicant's argument concerning claims 8-9 and 11 is the same argument applied against claim 1, and that argument was previously addressed.

11. Applicant argued "Bertram" (6,434,613) failed to mention "cluster level remedies". Bertram issued "recommendations" to improve the operation of a computer system. Recommendations to

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improve a computer system are "cluster level remedies". The issued claim, although not exactly matching Applicant's claim word for word, performed the same function as Applicant's claim and therefore is subject to the double patenting rejection. Applicant repeated this argument concerning "Bertram II" (6,470,464). Although the words "cluster level remedies" are not explicitly present in either "Bertram" or "Bertram II" as referred to by Applicant, Applicant's currently filed claims are broad enough to read on both of these issued patents, thus improperly extending the "right to exclude" should the instant application be passed to issuance.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In regard to claim 14, Applicant has claimed a computer readable medium as the embodiment. Applicant has defined computer readable media to further encompass a non-statutory "computer readable signal which...may be transmitted over a network". See specification, page 19, lines 7-8. Signals are not statutory subject matter. Computer programs must be embodied within a tangible, physical computer readable storage media. To overcome this rejection, Applicant should amend claim 14 to embody a "tangible computer-readable storage medium" and amend the specification to remove the reference to a "computer readable signal" which is a non-tangible embodiment. Support for this rejection is found in the "Interim Guidelines for Examination of Patent Applications for Subject Matter Eligibility", available on the USPTO website at <http://www.uspto.gov/web/offices/pac/dapp/oqsheets.html>, which supercedes the guidelines set forward in MPEP 2106.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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15. Claims 3, 4, 5, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

16. The term "latent bottleneck" in claim 3 is a relative term which renders the claim indefinite. The term "latent" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. One of ordinary skill in the art has no requisite metes and bounds by which to gauge the "latency" of a bottleneck based upon the specification.

17. The term "future bottleneck" in claim 4 is a relative term which renders the claim indefinite. The term "future" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. One of ordinary skill in the art has no requisite metes and bounds to judge what is meant by a "future" bottleneck since no timescale is given for judging this criterion within the specification.

18. The term "portion of the workload" in claim 10 is a relative term which renders the claim indefinite. The term "portion" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

19. One of ordinary skill in the art would necessarily be unfamiliar with the terminology "memory using" as applied in claim 5.

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. Claims 1-3, 5-7, 10, and 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Prakash et al. (U.S. Patent No. 6,434,626).

22. In regard to claim 1, Prakash disclosed *dynamically obtaining data for the plurality of nodes in the cluster by sampling the plurality of nodes, the data relating to a plurality of monitors for the node, dynamically analyzing the data to determine whether performance of the cluster can be improved; providing at least one remedy to improve performance of the cluster if the performance of the cluster can be improved, the at least one remedy capable of including a cluster level remedy*. Prakash disclosed a system for monitoring the nodes of a SAN cluster and generating responses to the status request messages (*dynamically obtaining data by sampling...analyzing the data to improve performance*, column 4, lines 21-33; lines 47-65). Prakash pointed out that performance monitoring systems for clusters in the prior art were developed to improve cluster performance by adding data paths, increasing point-to-point data paths, establishing peer-to-peer communications, determining device availability and throughput, and limiting messages in column 3, lines 2-63.

23. In regard to claim 2, Prakash is applied as in claim 1. Prakash further disclosed *determining whether a bottleneck exists for at least one monitor of the plurality of monitors for the plurality of nodes*. Status updates of devices indicated whether a device was in a "healthy" operating mode or an "unhealthy" operating mode. See column 4, lines 52-65.

24. In regard to claim 3, Prakash is applied as in claim 1. Prakash further disclosed *determining whether a latent bottleneck exists for at least one monitor of the plurality of monitors for the plurality of nodes*. Status updates of devices indicated whether a device was in a "healthy" operating mode or an "unhealthy" operating mode. See column 4, lines 52-65.

25. In regard to claim 5, Prakash is applied as in claim 1. Prakash further disclosed *the plurality of monitors include disk utilization, CPU utilization, memory using and LAN*. These were inherently considered part of the status condition of a device determining its "healthy" operation as denoted in column 4, lines 52-67.

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26. In regard to claim 6, Prakash is applied as in claim 1. Prakash further disclosed *the cluster remedy is capable of including transferring a load from a first node of the plurality of nodes to a second node of the plurality of nodes*. This prior art solution in cluster computer performance monitoring was shown in Prakash, column 3, lines 18-21.

27. In regard to claim 7, Prakash is applied as in claim 1. Prakash further disclosed *the cluster remedy is capable of including adding a new node to the plurality of nodes of the at least one cluster*. This prior art solution in cluster computer performance monitoring was shown in Prakash, column 3, lines 11-15.

28. In regard to claim 10, Prakash is applied as in claim 1. Prakash further disclosed *wherein a node of the plurality of nodes carries a workload and has a bottleneck, wherein a companion node of the plurality of nodes is capable of supporting a portion of the workload, and wherein the cluster remedy is capable of including a notification that the portion of the workload can be moved to the companion node*. The prior art solution of load balancing in cluster computer performance monitoring was shown in Prakash, column 3, lines 18-21.

29. In regard to claim 12, Prakash is applied as in claim 1. Prakash further disclosed *obtaining information relating to the cluster, the information including an indication of whether each of the plurality of nodes is a passive node, a maximum number of nodes in the cluster and a type of LAN adapter used for interconnecting the plurality of nodes*. This information was acquired in the status response messages in column 4, lines 52-67.

30. Claim 13 is substantially the same as claim 1.

31. Claim 14 is substantially the same as claim 1.

32. Claim 15 is substantially the same as claim 1. The graphical user interface was an inherent component of any network management tool produced after 1990.

33. In regard to claim 16, Prakash is applied as in claim 15. The plurality of agents provided the status responses to the status request messages as taught in column 4, lines 52-67.

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34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. Claims 4, 8-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prakash in view of Okuda et al. (U.S. Patent No. 5,923,645).

36. In regard to claims 4, 8, 9, and 11, Prakash is applied as in claim 1. Prakash failed to disclose the ability to predict a future bottleneck in the system. However, Okuda in the analogous art of network management using bottlenecks disclosed a prediction unit for identifying potential future bottlenecks in the system. See Okuda, column 5, lines 53-59. Since Prakash deals with managing networks that have bottlenecks, and since Okuda is able to predict future bottlenecks, it would have been obvious to one of ordinary skill in the art to modify Prakash with the teachings of Okuda in order to help stave off problems before they occur in the network, thus reducing collisions and latency.

Double Patenting

37. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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38. Claim 1 is rejected on the ground of nonstatutory double patenting over claim 1 of U. S. Patent No. 6,434,613 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: The patented claim receives "indicators of the performance of components" (*dynamically obtaining data...by sampling the nodes*), "applying stored rules to the stored indicators to analyze the performance of the computer system" (*dynamically analyzing the data to determine whether performance of the cluster can be improved*), and "...in response to the detecting of an undesirable condition of the computer system and a latent bottleneck, providing a recommendation to alleviate the performance of the computer system by providing a recommendation to improve the undesirable condition as well as the latent bottleneck" (*providing at least one remedy to improve performance of the cluster if the performance of the cluster can be improved, the at least one remedy capable of including a cluster level remedy*).

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

39. Claim 1 is rejected on the ground of nonstatutory double patenting over claim 1 of U. S. Patent No. 6,470,464 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: The patented claim "receives indicators of the performance of components of the computer system at periodic times" (*dynamically obtaining data for the plurality of nodes in the cluster by sampling the plurality of nodes*), "applying stored rules to the stored indicators to analyze the performance of the computer system" (*dynamically analyzing the data to determine whether performance of the cluster can be improved*), and "in response to the detecting of an undesirable condition of the computer system,

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providing a recommendation to alleviate the performance of computer system by ameliorating the projected undesirable conditions of the computer system..." *(providing at least one remedy to improve performance of the cluster if the performance of the cluster can be improved, the at least one remedy capable of including a cluster level remedy).*

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Conclusion

40. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jason Cardone
Supervisory Patent Examiner
Art Unit 2145